# Willingness-To-Pay for Fairtrade Products: How Different Information About Tariffs Influences Consumer Choice

Anne Miranda

**Abstract**

Consumer willingness-to-pay (WTP) for Fairtrade products is an important topic in international economics that examines the demand side of the market for ethically sourced goods. Under Fairtrade, consumers who buy labeled products typically pay more than market prices and some portion of this price premium goes towards bettering the terms of trade for producers who are considered marginalized. The purpose of this research will be to examine how consumer WTP for Fairtrade products changes under different pricing given the introduction of new information regarding the accounting of tariffs in the price premium. This paper also seeks to examine the relationship between charity and consumer utility and how much consumers are willing to pay for a Fairtrade product before deciding that the price premium is not justified. Additionally, this paper will use consumer choice and demand as a way of determining whether consumers exhibit faith in the government to resolve global socioeconomic issues. The results from the statistical and economic models I present show that consumers already have a preference for the Fairtrade product under a system of no information other than price and label, that this preference strengthens after being presented with a price breakdown of import tax and producer contribution amount, and that this preference becomes even greater when told that the US government will use the tax revenue towards international development programs. The warm glow effect and the utility consumers receive from making a charitable purchase is also pronounced, and consumers also indicate a considerable trust for the government through their market choices.

## Motivation

This paper seeks to contribute to the literature focusing on the demand side of Fairtrade and how consumers change their behavior and consumption choices under varying information levels in the market. The scope of the paper is not limited to Fairtrade and many of the mechanisms discussed can be applied to the greater span of consumer markets. The topics I discuss are relevant in various subdisciplines of economics including international development and behavioral economics.

The nature of Fairtrade products makes a thorough discussion without references to international trade difficult. On the supply side of this market, Fairtrade goods are sourced outside of the United States or developed regions in general and part of the revenue generated from them is for the benefit of economically disadvantaged producers in developing areas of the world.[1] On the demand side, most consumers of Fairtrade products are from developed countries, where they have more

[1] Sarcauga, "History of Fair Trade."

disposable income and have more freedom to choose between a Fairtrade labeled good and cheaper market alternatives.[2] For this reason, this is a market that necessarily spans across countries. The improvement of economic conditions of disadvantaged producers is the motive that underpins the very existence of the Fairtrade label. Analysis of this market using aspects from trade is thus a natural next step in the research which can help answer questions about the demand in this market.

There are other reasons why analysis from a trade perspective is useful. One reason is that it can be used as a tool to explore imperfect information in consumer markets. The success of programs like Fairtrade depends on consumers buying products with their label, but consumers need to have a justification for paying a higher premium for a Fairtrade good over a cheaper market alternative. This justification is in the form of contributions from the revenue to the disadvantaged producers participating in the program. The imperfect information lies in the question of how much of this premium gets transferred to the producers, which may not be immediately apparent when making the purchase, and how much goes towards administrative or other miscellaneous factors such as taxes. Exploiting the fact that these Fairtrade goods are typically imported from developing countries allows us to use mechanisms such as import tax to examine how consumer preferences change with different information about price breakdown of the product.

Tariffs are a useful tool to help answer questions about consumer behavior in the Fairtrade market, and this will be the main focus of the paper. These results could possibly be extended more generally to apply to all markets. The underlying mechanism at work here is the balance of charity and the price of a product in consumers' utility from buying a Fairtrade good. Fairtrade labeled products have a price premium attached to them since a portion of the price goes to supporting the producers of the product.[3] Consumers who buy Fairtrade goods typically do so because they are willing to pay a little extra knowing that the extra money will go to the producers and improve their economic conditions. As such, charity is factored into their utility because despite the negative relationship between price and utility, consumers who buy Fairtrade products ultimately choose them over cheaper market alternatives because they get increased utility from doing something considered charitable, in a phenomenon known as the warm glow effect.[4] If, instead, consumers were told that a portion of this price premium was the result of a tariff on the imported product, they might reconsider their choices. Given no additional information, any money that goes towards a tariff is money that is not going to the producers who are supposed to be the beneficiaries of the Fairtrade premium. The portion of the price premium going towards a tariff thus would get switched over from the "charity side" of a consumer's mental formula to the "price side." In this way, tariffs can be used to analyze the tradeoff between charity and price, and at what point consumers think it is no longer worth it to choose a Fairtrade product over a market alternative.

Another usefulness of the tariff mechanism is to understand whether people have a lot of faith in the government relative to the free market when it comes to addressing issues such as global poverty and other economic problems in the world. If consumers are given a simple price

[2] Ibid.
[3] Fairtrade Foundation, "Fairtrade Premium."
[4] Andreoni, "Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving."

breakdown consisting of how much money goes towards producers and how much goes towards import tax and are later told that the government will use the tax revenue to fund international development aid, their changes in preference for a Fairtrade product can tell us whether they believe the government's efforts to solve these global socioeconomic issues are effective. Although a simple question, this roundabout analysis can possibly answer this question more effectively than if one were to simply ask consumers whether they trust the government to solve these issues, as their market activity and demand would ultimately indicate how they would choose to use their money and whether they believe in the viability of these initiatives. This methodology serves as a market-based way of obtaining information about consumer beliefs based on how their demand moves in response to changes in the market.

Among prior literature, one important paper that discusses the consumer side of the Fairtrade market is a study by Hainmueller et al, which concludes that there is substantial consumer support for Fairtrade labels, although there is heterogeneity in WTP for those labeled products due to varying elasticities of demand.[5] Their study analyzes consumer responsiveness to changes in price of Fair Trade-labeled products relative to non-labeled products, but they do not analyze this responsiveness under varying information schemes that reveal more about how price premiums over market alternatives are determined.

Another important paper that serves as a basis for the questions I discuss is a study by Basu and Hicks, which explores how WTP changes when consumers are given more information about the performance of the Fairtrade program and how much income is guaranteed to the producers.[6] The results from that paper showed that WTP increased with increasing income gains to the producer until reaching a certain point and dropping off afterwards. This paper seeks to incorporate a similar but different mechanism by adding information on both producer contribution dollar amounts as well as import tax amounts included in the purchase, the latter serving as a deadweight loss component to answer the questions about the price vs. charity tradeoff and exploring how much faith consumers have in the government.

## Methodology

I conduct a discrete choice experiment administered through Qualtrics to the population of internet users between October 2017 and February 2018. The survey was distributed to various online communities across different platforms including Facebook, Reddit, Discord (specifically servers with American and European users), and survey distribution sites such as SurveyCircle and SwapSurvey. A total of 77 fully completed responses were recorded and used in this study.

Using the response data obtained, I use conditional and multinomial logit econometric models to analyze how people's preferences for shirts shifted given changes in price and information about tariffs. I presented respondents with a choice between two shirts: a shirt made in Nicaragua with a

[5] Hainmueller, Hiscox, and Sequeira, "Consumer Demand for the Fair Trade Label: Evidence from a Multi-Store Field Experiment."
[6] Basu and Hicks, "Label Performance and the Willingness to Pay for Fair Trade Coffee: A Cross- National Perspective."

Fairtrade label on it and a shirt made in USA with no label. Before presenting the shirt options, I provided a brief summary of Fairtrade and its mission. A third opt-out option was included so that respondents would not feel forced to pick a shirt they did not prefer. These choice questions were broken down into three sections with different levels of information presented, and the survey itself was designed to prevent respondents from returning to previous sections to change their answers. The first information regime consisted of three questions which only presented information about the shirts' country of origin, labels, and price; price was the only characteristic that was altered. The price of the US/no label shirt remained constant at $7.99 while the Nicaraguan/Fairtrade shirt was priced at $8.49, $8.99, and $9.99 beginning with the lowest price presented first. Throughout all information regimes, the Nicaraguan shirt was always priced higher than the US shirt, with a $8.49 minimum. Maintaining this price premium was necessary to reflect the fact that consumers are paying extra for a product that promises to contribute to an ethical cause; the premium essentially represents the charitable component of such a purchase.

The second information scheme consisted of five questions and introduced a new breakdown of the price of the Nicaraguan shirt. In this section, respondents were told that a certain portion of the price of this shirt goes towards an import tax while another specified portion is the amount that the producer is actually receiving from the purchase. The method I used to determine what these dollar amounts should be was taking the price difference between the US and Nicaraguan shirts and alternating between a 30% or 60% tariff on this difference. As a result, these choices included shirts where the dollar tax amount was greater than the contribution to the producer as well as shirts where the contributed amount was greater than the tax amount. Similar to the first information regime, the price of the Nicaraguan shirt increased with each choice and as such, both price level and tariff/contribution amount were variable characteristics in this regime.

The third information regime had the exact same questions as the second regime, except respondents were now told that the US government was going to use the revenue from the tariff towards international development and aid programs. The price and tariff levels alternated in the same amounts as in the second information regime; the only difference between these two regimes was the additional information about how the tax revenue was to be used.

I chose shirts as opposed to another commodity because it fit the two most important criteria I had when developing the survey. The first criterion was the universalness of the product. I had to choose a product that was a common purchase across most types of consumers—not too expensive and considered enough of a necessity that most people would not elect to opt out of buying one. Clothing was a suitable choice for this and shirts in particular are more neutral with respect to consumer characteristics such as gender, relative to other articles of clothing such as pants. The second criterion was the substitutability of the product. The products that I chose must be considered as close to perfect substitutes as possible with respect to certain characteristics and attributes beyond the ones I specify. An example of a good that would not fit this criterion is coffee. If a consumer is presented with a choice between American coffee and Nicaraguan coffee, their choice would likely not only be influenced by characteristics I have specified such as price or label, but by other attributes such as quality, resulting in unobserved heterogeneity in the data. Coffees from different geographical locations have different reputations among consumers based on factors

such as taste, and it would not be unreasonable to expect that there would be bias towards coffee from one of the two countries depending on which type of coffee the consumer prefers based on these outside characteristics. Shirts could perhaps experience such a bias as well (e.g. consumers might believe one is inherently of higher quality than the other based on where it is made), but it would be on a much smaller scale especially since shirts are not necessarily a luxury good and are more of a necessity than a product such as coffee.

The research itself was designed specifically to target consumers in developed countries, but the questions themselves are constructed from a US-specific perspective. The prices of the two shirts are after-tax prices, but an import tax is only applied to the Nicaraguan shirt and the US shirt takes the position of being the "domestic" shirt with no additional tax. I designed the questions like this rather than having entire country blocks (e.g. US and EU countries) that would represent a wider range of consumers from developed countries because it is more straightforward and less convoluted. Product labels typically only include one country of origin (e.g. "Made in USA"), so it would not be practical to include a shirt option that represented multiple developed countries. Furthermore, the issue of how the tax revenue is to be used involves a specific national government's budget and in order to incorporate scenarios from multiple developed countries, I would have had to add many more shirt options. Additionally incorporating the tariff mechanism and having specific tariffs apply to respective consumers across different countries would have made the survey much too long and too impractical for people to want to complete it. The way the survey was written did not necessarily exclude consumers outside the United States from taking it because the scenario and choices were outlined in such a way that a consumer living outside the US would hypothetically assume they were buying in the US market (e.g. the specification that all prices listed were in terms of USD and the lack of an import tax on the US shirt). I later present additional results excluding consumers outside of the US to show that the findings remain robust.

## Empirical Strategy and Findings

### *Summary Statistics*

The survey sample consisted of 77 responses multiplied by 2 t-shirt choices and 13 choice questions for a total of 2002 observations. Of these, 116 observations were dropped due to opt-outs, leaving 1886 observations overall. As shown in Figure 1a in the appendix, 51% of the respondents were male while 49% were female. 90% of all respondents were not members of a human rights group (Figure 1b). A majority of respondents (57%) were in the 18-24 year old age group, followed by 19% in the 25-30 year old group, 13% in the 40+ year old group, and 10% in 31-39 year old group (Figure 1c). Finally, among demographic information, the educational background of respondents is shown in Figure 1d. The majority of respondents had at least some college experience. 36% had completely as far as a 4-year degree while 27% had some college or a 2-year degree, and 21% had a postgraduate degree. 14% of respondents had obtained as far as a high school diploma or equivalent and 1% had less than high school.

The survey also obtained information about respondents' views on social issues as well as their consumer background. Figure 2 in the appendix shows the distribution of the social issues that

respondents care about. The vast majority of respondents care about issues such as fair labor standards and workplace safety, child labor, poverty and inequality, animal cruelty, and whether products were ethically sourced. A smaller portion of respondents (21%) cared about supporting American-made goods while 5% did not care about any of these issues. Figure 3 shows how respondents rated the importance of certain factors when making a purchasing decision. 85% said that the price being as low as possible was moderately, very, or extremely important. At the same time, roughly 79% (accounting for rounding errors) indicated that proceeds of the purchase going towards disadvantaged producers was moderately, very, or extremely important. In contrast, over half the respondents indicated that it was of no importance that the shirt is made in USA. Respondents' familiarity with the Fairtrade label was very diverse, as Figure 4 shows. About a quarter of respondents were not at all familiar with the label and only about 14% were extremely familiar with it. The overall responses tended to be skewed towards unfamiliarity with the label rather than complete familiarity. Regarding consumer habits, there is a wide variation in both budget and number of shirt purchases. Figure 5 shows respondents' annual budgets for purchasing shirts, where the largest group—about 31%—has a budget of $100-$300. About 69% of respondents purchase between 2 to 7 shirts annually and 25% purchase more than 7 shirts a year, indicating that shirts are a fairly common purchase among most respondents (Figure 6).

### *Statistical Models*

For the regression portion of the data, I use three separate logistical models to cross-check the results with each other. The first category consists of four conditional logistical models that use dummy variables. The second category consists of three conditional logistical models, but without the use of any dummy variables. The third category consists of three classic multinomial logistical models without the use of any dummy variables. All three categories use Choice as the dependent variable with the shirt attributes—Price, Tariff Level, and Country of Origin—as the independent variables. The Label of the shirt is omitted from the models because of collinearity since the same label is attached to the same corresponding country of origin in every question.

In the first category with dummy variable conditional logistical models, the data I discuss is divided into two subsets. In the first subset, I explore how shirt preferences change from the first information regime to the second regime. This seeks to answer how the likelihood of picking one of the shirts changes when I first present the breakdown of import tax amount and contribution to the producer. In the second subset of the analysis, I explore how shirt preferences change from the second information regime to the third. The underlying question in this portion is how the likelihood of choosing the same shirt changes when I present information on how the tax revenue is to be used by the government.

Each subset of the analysis includes two different models. In the first subset, the first model regresses Choice on Price, Tariff, and Made in Nicaragua. Since each observation is one possible choice in the shirt questions, they are grouped by ID corresponding to the respondent making the choice. The observations are limited to the questions corresponding to the first and second information regimes since these are the regimes discussed in the first subset of the analysis. In the

survey, questions 3, 4, and 5 correspond to the first information regime, questions 6-10 correspond to the second regime, and questions 11-15 correspond to the third regime. Observations are filtered accordingly. Thus the first model in Stata follows the form:

$$Choice = \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua \text{ if } Question \leq 10, \text{ group}(ID) \quad (1)$$

To analyze how the likelihood of choosing the Nicaraguan shirt changes from the first to the second information regime, the second model additionally includes an Information dummy variable where 0 indicates that the choice question belongs to the first regime and 1 indicates that it belongs to the second regime.

$$Choice = \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua + \beta_4 Info1 \text{ if } Question \leq 10, \text{ group}(ID) \quad (2)$$

Each coefficient signifies the likelihood of choosing a shirt with that particular attribute. The coefficient of interest in both models is $\beta_3$ and in order to answer the question of how the likelihood of choosing the Made in Nicaragua shirt changes, I look to see how this coefficient changes in magnitude from the first to the second model after the inclusion of the Information dummy variable.

The models of the second subset are similar to those of the first with the exception of the questions and observations involved and the inclusion of a different Information dummy variable. Since this second subset deals with the second and third information regimes, observations from questions 3, 4, and 5 are filtered out. The first model is:

$$Choice = \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua \text{ if } Question \geq 6, \text{ group}(ID) \quad (3)$$

The second model includes a different Information dummy variable than the model from the first subset. In this new variable, observations from the second information regime take on a value of 0 while observations from the third regime take on a value of 1.

$$Choice = \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua + \beta_4 Info2 \text{ if } Question \geq 6, \text{ group}(ID) \quad (4)$$

As with the first subset, the coefficient of interest is $\beta_3$ to analyze how the likelihood of choosing the Made in Nicaragua shirt changes when I present information about how the import tax revenue from the shirt is to be used by the government.

In the second category of conditional logistical models with no dummy variables, I analyze each of the three information regimes separately. Each model regresses Choice on the different shirt characteristics, and I compare the coefficient on Made in Nicaragua to analyze how the likelihood of choosing the shirt changes across the three regimes. The three models corresponding to each of the three information regimes are as follows:

$$Choice = \beta_1 Price + \beta_2 Nicaragua \text{ if } Question \leq 5, \text{ group}(ID) \quad (5)$$

$$Choice = \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua \text{ if } Question \geq 6 \ \& \ Question \leq 10, \text{ group}(ID) \quad (6)$$

$$Choice = \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua \text{ if } Question \geq 11, \text{ group}(ID) \quad (7)$$

The model corresponding to the first information regime does not include the Tariff variable since that information was not provided to respondents with the set of questions in that choice group. Observations are filtered based on which questions correspond to the respective information regime: Questions 3-5 for the first regime, 6-10 for the second, and 11-15 for the third. The coefficients of interest in this model set are $\beta_2$ in model (5) and $\beta_3$ in models (6) and (7). To analyze how preferences change, I compare these three coefficients and their significance levels to assess how the likelihood of choosing the Made in Nicaragua shirt changes through each regime.

In the third and final category of models, I use three multinomial logistical models with the same regime breakdown as in the second model category which uses conditional logistical models. Observations are filtered the same way, with the only difference being that the multinomial logit models are not grouped by respondent:

$$Choice = \beta_0 + \beta_1 Price + \beta_2 Nicaragua \text{ if } Question \leq 5 \quad (8)$$

$$Choice = \beta_0 + \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua \text{ if } Question \geq 6 \ \& \ Question \leq 10 \quad (9)$$

$$Choice = \beta_0 + \beta_1 Price + \beta_2 Tariff + \beta_3 Nicaragua \text{ if } Question \geq 11 \quad (10)$$

Mirroring the second model category, the coefficients of interest in this model set are $\beta_2$ in model (8) and $\beta_3$ in models (9) and (10). The changes in magnitude and/or direction of these coefficients will indicate how the likelihood of choosing the Made in Nicaragua shirt changes across the three information regimes.

There are a few reasons for using these different model types. The first two model groups provide two different ways to model the data using clogit. Clogit models choice as a function of the characteristics of the shirt options. This is useful for our purposes in this paper since all the independent variables are the shirt characteristics and we would like to know how the country/label characteristic influences respondents' likelihood of choosing a shirt. Additionally, setting up one system to use dummy variables and another to model each information regime independently provides two different methods to use clogit to answer the question of interest. I follow these results with standard multinomial logit models for comparison purposes. In the following section, I show that results across all three model categories remain fairly consistent overall.

*Results*

I provide both clogit and mlogit estimates for comparison between the three types of models. I first discuss the results of the conditional logit models with dummy variables. Table 1 in the appendix shows the results regression (1) corresponding to the first data subset using only observations from the first and second information regimes. Beginning with Price, the negative and statistically significant coefficient at $\alpha=0.01$ on the variable shows that all else held equal, the likelihood of choosing a shirt goes down with an increase in price. This is an expected and unsurprising result which helps indicate that the model is robust, as a positive coefficient would immediately make the model questionable. The coefficient on Tariff is small and negative, indicating that the likelihood of choosing a shirt goes down (though not by much) with an increase in the percentage of the tariff. However, this result is statistically insignificant. The coefficient on Nicaragua is positive and significant at the 1% level, indicating that a shirt has an increased likelihood of being chosen if it is Made in Nicaragua.

Table 2 shows the results of regression (2), which adds the Information dummy variable. The coefficients on Price and Tariff do not change much except for a slight increase in magnitude; the direction still remains negative for both and Price is significant at the 1% level while Tariff remains statistically insignificant. The addition of the Info1 dummy variable and the subsequent change in the Nicaragua coefficient will indicate how preferences change. The coefficient on Nicaragua remains positive in direction and increases in magnitude. In other words, the introduction of information about tariffs increased respondents' likelihood of picking the Made in Nicaragua shirt between the first and second information regimes.

Tables 3 and 4 describe the results of the two models from the second data subset using only observations from the second and third information regimes. Table 3 shows the results of model (3). Similar to the previous models, Price and Tariff have negative coefficients except this time, the coefficients of both are statistically significant at the 1% level. Thus the likelihood of choosing a shirt goes down with an increase in price or tariff level, all else held equal. The coefficient on Nicaragua is again positive and significant at the 1% level.

Table 4 shows how these results change with the addition of the Info2 dummy variable. The coefficients on Price and Tariff remain unchanged. Interestingly enough, the coefficient on Nicaragua also remains unchanged. The coefficients for all three are significant at the 1% level.

The data indicates that respondents' preferences did not change when they were presented with additional information on how the import tax revenue was to be used by the government. One important detail to note is that the Nicaragua coefficient remains unchanged in the table produced by Stata due to rounding, as the original output provides estimates with more significant figures that show a very slight increase in preference that could be considered negligible in this model.

To supplement these results, I also include the same four models shown except I replaced Made in Nicaragua with Made in USA to see how preference for the US shirt changes. Table 5 shows the results of model (1) with this change. It paints the same picture regarding Price and Tariff, with a negative and significant coefficient on Price and negative but insignificant coefficient on Tariff. However, while the coefficient of the Nicaraguan shirt was positive, the coefficient on the US shirt is negative, and significant at the 1% level. With the addition of the Info1 dummy variable in the second model, the US coefficient increases in magnitude, or becomes more negative (Table 6). The results of the second data subset also mirror the results of the models with the Nicaragua variable. The coefficient on USA remains negative and significant, and the addition of the Info2 variable does not change its value when reported to three decimal places (Tables 7 and 8). These results support the ones obtained in the original models with the Nicaragua variable. While the likelihood of choosing a shirt that was Made in Nicaragua is positive, the likelihood of choosing a shirt that is Made in USA is negative. This is a result that does not change throughout all information regimes, and in fact the likelihood of choosing the Nicaraguan shirt increases and the likelihood of choosing the US shirt decreases with more information.

As a final measure of thoroughness, I also run the same original four models limited to observations from respondents living in the US for the sake of comparing it to the larger overall dataset. Observations belonging to 26 of the original 77 respondents are filtered out. The results of these regressions are shown in Tables 9-12. As always, the coefficient on Price is negative and significant at the 1% level in all four models. However, despite Nicaragua having a positive coefficient, this result is statistically insignificant in the first two models which involve the first and second information regimes (Tables 9 and 10). In other words, between the first and second information regimes, US-residing respondents were effectively indifferent between the US and Nicaraguan shirts and presenting them with a breakdown of the Nicaraguan shirt's price did not change this. One other interesting detail to note is that the addition of the Info1 dummy variable resulted in Tariff's negative coefficient becoming statistically significant at the 10% level. Presenting US-residing respondents with the import tax breakdown of the Nicaraguan shirt resulted in the likelihood of a shirt with a higher tariff being chosen to decrease, a logical finding that works much the same way as an increase in general price. These results change in the last two models concerning the second and third information regimes (Tables 11 and 12). In both models, Price, Tariff, and Nicaragua are all statistically significant at the 1% level, with the coefficient on Price and Tariff negative and Nicaragua positive. Additionally, the inclusion of the Info2 dummy variable does not change the Nicaragua coefficient as it is reported in the table. Similar to the overall data pool, providing these respondents with information about how the import tax revenue is to be used does not significantly change their preference for the Nicaraguan shirt.

Next, I discuss the results of the second category of conditional logit models. The results of model (5) corresponding to the first information regime are shown in Table 13. The coefficient on Price is negative and significant at the 1% level. The coefficient on Nicaragua is also positive and significant at the 5% level. In the results of the second information regime model in Table 14, coefficients on Price and Tariff are negative and significant at the 1% level (with the coefficient of Price decreasing in magnitude relative to the first information regime). The coefficient on Nicaragua increased in magnitude between the first and second information regimes, from 0.61 to 1.79, now significant at the 1% level. Table 15 shows the results of the third information regime model. The coefficient on Price is still negative and significant at the 1% level (though it increased in magnitude relative to the second information regime) and Tariff is negative and significant at the 5% level, with a slight decrease in magnitude relative to the second information regime. Most importantly, the coefficient on Nicaragua is still positive and increased in magnitude even further, from 1.79 to 1.94, at a 1% significance level. There was a positive likelihood of respondents choosing the Nicaraguan shirt in the first information regime, which only increased with more information added in both the second and third regimes. The results of the first and second information regimes match the results obtained in the previous conditional logit models with dummy variables, however the results of this second set of models regarding the effects of the third information regime do not entirely match up with the results of the first set of models. In the first set of models, we concluded that there were no changes in preferences for the Nicaraguan shirt between the second and third information regimes. However, this set of models shows that there was a change in preferences, and that being provided information about how the government is to use the import tax revenue further increased respondents' likelihood of choosing the Nicaraguan shirt.

I also run these same conditional logit models restricted to respondents living in the US to check whether the results remain identical. Tables 16, 17, and 18 show the results of the first, second, and third information regime models, respectively. Within the first information regime, the likelihood of choosing the Nicaraguan shirt is still positive, however it is not statistically significant. In effect, US respondents were indifferent between the Nicaraguan and US shirts in the first information regime, though with a slight indication of possible preference for the Nicaraguan shirt. In the second information regime, the coefficient on the Nicaragua shirt increased to 1.35 and is significant at the 5% level. This coefficient increases yet again in the third information regime, from 1.35 to 1.49, at a new significance level of 1%. Although the results do not exactly mirror the results of the entire pool of respondents, the movement of preference between information regimes is the same. The likelihood of US respondents choosing the Nicaraguan shirt increased throughout each information regime.

The final set of models I discuss is the regular multinomial logistical model set. Table 19 shows the results of model (8), pertaining to the first information regime. The coefficient on Price is negative and significant at the 1% level. The coefficient on Nicaragua is positive at 0.73, significant at the 5% level. Table 20 shows the results of the second information regime model. Price and Tariff are negative at the 1% level for both, while the coefficient on Nicaragua increased to 1.97, significant at the 1% level. Meanwhile, the results of the third information regime model in Table 21 show that the coefficient on Nicaragua increased yet again to 2.15, also significant at

the 1% level. Thus the likelihood of choosing the Nicaraguan shirt increased from the first to the second information regime and again from the second to the third information regime. These results mirror the results obtained in the second set of models, the conditional logit models with no dummy variables. Beginning with the first information regime with no information about the shirts other than price, label, and country of origin, respondents' likelihood of choosing the Nicaraguan shirt was positive. Their likelihood of choosing the Nicaraguan shirt increased when presented with the breakdown of tariff amount and producer contribution amount. Their likelihood of choosing the Nicaraguan shirt increased further when told that the US government planned to use import tax revenue towards international aid programs. Essentially, the second and third sets of models—conditional logit with no dummy variables and multinomial logit—corroborated each other's findings, in partial contradiction to the results of the first set of models with conditional logit and the dummy variable setup.

As with the previous two model sets, I run the same multinomial logistical regressions limited to respondents living in the US. Table 22 shows that the coefficient on Nicaragua in the first information regime is positive but not statistically significant, which is the same result obtained in the conditional logistical regression of the second model set. In the second information regime, the same coefficient increased and is statistically significant at the 1% level (Table 23). Finally, in the third information regime, the coefficient increased to 1.64 (from 1.47), again statistically significant at the 1% level (Table 24). These results mirror the ones obtained by the second set of conditional logistical models: US respondents were effectively indifferent between the US and Nicaraguan shirt in the first information regime, then their likelihood of choosing the Nicaraguan shirt increased in the second regime, and increased further in the third regime. Despite varying levels of statistical significance compared to the overall data set, preferences among US respondents move in the same directions as the larger pool of respondents in all three model sets, reinforcing the argument that the survey setup is robust enough to capture consumer preferences in the US market.

## Discussion

What these results have indicated is that respondents have a preference for the Fairtrade shirt from a developing country, even before presenting them with any additional information about where their money goes and how it is used. This is an unsurprising result given the profile of the respondents, which indicates that they are socially and ethically conscious in general. And yet when they are presented with a breakdown of how much of the price of the shirt goes towards the producer and how much goes towards a tax, their preference for the Fairtrade shirt becomes even stronger. We can infer from this that having access to more information about the product increases respondents' propensity to make charitable purchases, as the underlining cause of the Fairtrade labeling program is to improve economic equity in disadvantaged regions of the world. The answer to the titular question of this paper is that having more information about tariffs increases the overall likelihood that consumers will choose the Fairtrade shirt.

This finding helps us understand how preferences change between different levels of information. However, one of the economic questions I pose in earlier sections is regarding the balance between price and charity and at what point consumers find that the price premium is not worth the purchase of a Fairtrade shirt. To answer this, I present additional economic models that involve basic demand and inverse demand functions. Figures 7, 8a, and 8b in the appendix show respondents' fitted aggregate demand curves for the Made in Nicaragua shirt for each of the three information regimes. The quantity demanded, on the horizontal axis, is determined by the number of respondents who picked the Nicaraguan shirt at each of its price levels. For the first information regime, this is simply the original three prices of the shirt ($8.49, $8.99, and $9.99). In the survey, the second and third information regimes had repeating prices with different tariff and contribution levels. For these two regimes, I calculate a "real price" determined by:

$$\textit{Real Price} = \textit{Original Price} - \textit{Contribution}$$

This real price is a way of showing the effective price consumers pay which reflects their utility of the shirt itself, including tax and minus the charitable component represented by the contribution to the producer.

Figure 9 shows all the fitted aggregate demand curves for the Nicaraguan shirt superimposed on one another. The graph makes it easier to see that the demand curve of the first information regime is the most inelastic. After being provided with information about tax and contribution breakdown, the market demand curve of the second regime becomes more elastic relative to the first regime. Finally, after being provided with information about how the government will use the import tax, the demand curve of the third information regime becomes slightly more inelastic again relative to the second regime, though not as much as the first information regime. Treating each regime as a separate market, this means that the quantity demanded by respondents was more responsive to changes in price in the second market/regime relative to the first, but became slightly less sensitive in the third regime relative to the second. In other words, under the third market where the available information to consumers includes both the price breakdown and the government's plan on how to use import tax revenue, any increase or decrease in the price of a Fairtrade, Made in Nicaragua shirt will not change the quantity of shirts demanded as much as it would in the second market where the only information available to consumers is the price breakdown.

This analysis of elasticity sets the groundwork of describing how responsive consumers are in general to changes in price of the Fairtrade shirt, but to try to specifically pinpoint where in this real price range consumers feel the extra money towards the Fairtrade shirt is not worth it, I present models akin to inverted demand curves. Additionally, these models also separately include the number of US shirts chosen by respondents. Given the nature of market demand and how the quantity demanded generally decreases with an increase in price, adding the demand for the US shirt into the analysis helps us see at which price level(s) the demand for the Nicaraguan shirt drops off and switches over to the US shirt. Figure 10 shows the amount of Nicaraguan shirts chosen vs US shirts chosen for the first information regime. Unlike the previously discussed demand curves,

this graph has Price on the horizontal axis and Quantity Demanded on the vertical axis. Data points for each shirt are plotted with a fitted line for each to estimate their respective linear inverse demand curves. Since the US shirt serves as the control in the survey and its price remains constant and below the Nicaraguan shirt, I compare both shirts with respect to the price of the Nicaraguan shirt as it increases. In the three price levels shown in Figure 10, the number of Nicaraguan shirts chosen was higher than US shirts at the first two price levels before preferences switched in favor of the US shirt at the $9.99 price level. Using fitted lines to model each shirt's demand with respect to Nicaraguan prices and based on their functional forms, the intersection in the demand of the two shirts is at $9.08. This is a 13.64% price premium relative to the price of the US shirt. Based on this simple model in the first information regime, respondents as a whole were willing to tolerate a Nicaraguan/Fairtrade shirt price up to 13.64% more expensive than the US shirt before switching preferences over to the cheaper US, non-labeled shirt. This essentially represents the point where the effect of price and its "expensiveness" outweighs the charity factor in consumers' decision-making in this market.

Unlike the first information regime, the second and third information regimes rely on "real prices" that discount the producer contribution—or the charitable component—of the purchase in order to analyze demand based on the price for the shirt itself (i.e. based on the utility the consumer would get from using the shirt separate from the utility the consumer would get from contributing to a cause). Figures 11a and 11b show the same inverse demand curves for the second and third information regimes, respectively. As with the demand curves for the Nicaraguan shirt, the prices in these graphs are calculated with the same formula as the demand curves in Figures 8a and 8b. Each graph has five observations at six different price points (two observations at $8.59). Using the two fitted demand curves for each shirt and their respective functional forms, the point of intersection in the second information regime in Figure 11a is just below the $8.59 price point, specifically at $8.56. This represents the point where the preference for the US shirt overtakes that of the Nicaragua shirt, given the introduction of information about tariffs and the real prices generated from that. This is a 7.13% price premium relative to the price of the US shirt. In Figure 11b, the intersection point is between the final two price levels, at $8.73—a 9.26% price premium relative to the US shirt. In the second regime, respondents were willing to tolerate a Nicaraguan shirt price up to 7.13% more expensive than the US shirt whereas they were willing to tolerate up to a 9.26% price premium relative to the US shirt in the third regime. Essentially, respondents' willingness to pay a higher price for the Nicaragua shirt increased when told that the US government was planning on using the import tax revenue for international development and aid programs.

This result helps corroborate part of the results obtained in statistical model sets 2 and 3. Since the second and third information regimes share the same real price levels, we can compare respondents' price premium tolerance levels between the two regimes to see that there was a 2.13 percentage point increase in this willingness to pay from the second to the third regime. Respondents effectively had a higher threshold in the third regime, where their preferences switched over to the US shirt at a higher price level compared to the second regime. This supplements the earlier statistical results which showed that respondents' likelihood of choosing

the Nicaraguan shirt increased in the third information regime relative to the second, even though the two results do not necessarily mean the same thing.

This leads to the final remaining question of whether consumers have faith in the government relative to the free market when it comes to remedying issues such as global income inequality or poverty. Results from the second and third information regimes can help answer this. Despite results from the first model set showing no difference in preference for the Fairtrade shirt between these two regimes, the second and third model sets as well as the analysis from the economic models strongly indicate that preference for the Fairtrade shirt increased further in the third information regime. I argue that this shows an overall trust for the government and their efforts to alleviate global economic issues. The only difference between the two information regimes is the additional disclosure of how the government plans to use the import tax revenue from the shirt, in the third regime. In response, respondents were more likely to choose the Fairtrade shirt and had a higher price tolerance for it. If one did not believe in the government's ability to help resolve these economic issues or did not believe that the government would at least carry them out in good faith, their preference for the Fairtrade shirt would most likely stay the same or even decrease. It could be argued that the stronger preference for the Fairtrade shirt in the third regime is a given since respondents would have already signed away the import tax amounts as a deadweight loss in the second information regime and that being later told that there could be at least some usefulness to that tax contribution would increase their preference for the Fairtrade shirt. However, I argue that this reasonably would not increase their preference for the shirt if they did not actually believe that that revenue would be made useful, hence their trusting of the government to make a positive contribution to this issue. If respondents truly believed that the government is not capable or trustworthy enough to make a positive difference, it is more reasonable to expect that preferences would not change even when accounting for the deadweight loss of the tax in the second information regime.

Ultimately what ties everything together is the access and availability of information. Earlier in the paper, I hypothesized that respondents may reconsider choosing the Fairtrade shirt when told that a portion of the price premium they pay is actually the result of a tariff. However, these results imply the opposite. Having more information about where their money goes increases their overall confidence and preference for the Fairtrade shirt. The "charity factor" in consumers' utility functions is strong enough that they are willing to purchase the Fairtrade shirt as long as some portion of the price premium is going to producers, even if the rest goes towards tax. I argue that this serves as evidence in favor of increased transparency in market transactions, particularly ones that involve a charitable aspect in the purchase. With more information available, consumers are given a better idea of where their money goes and seeing this quantified as they make their purchases amplifies the warm glow effect and helps further justify their charitable purchase.

## Limitations

This study is not without its limitations which may affect the applicability and usefulness of the results. The first of these is the fact that the survey was conducted among a population of internet

users. Due to the widely-connected nature of the internet and social media sites, internet users may be more socially and ethically conscious relative to the general population. This could mean that respondents are predisposed towards choosing Fairtrade-labeled goods and thus preferences would be skewed towards labeled products. A possible future step in the research would be to replicate the study among consumers in the general population. Another limitation is self-reported data. Since respondents are the ones indicating what their choices would be in hypothetical circumstances, there is no certainty that they are being truthful and that the choices they indicate in their response reflect their actual consumer spending habits and choices. Related to this issue is the problem of surveys and selection bias, since respondents are people who elected to take the survey voluntarily and may not represent the views of the general population. One other possible source of concern about the general study is the effectiveness of the survey in conveying information and respondents subsequently taking them into account when answering the questions. For instance, the distinction between the data in the second and third information regimes comes only from the fact that the third information regime provided additional written information about how the government will use the income tax from one shirt. For the differences in the two data groups to mean anything, it is necessary that respondents have read and understood the statements and the provided information and incorporated that into their subsequent choices. Even making the statements stand out visually and expressing them clearly is no guarantee that respondents will choose to read and use the provided information; this issue essentially stems back to the problems regarding self-reported data. A related problem is the issue of shirt characteristic endogeneity and that respondents may have preconceived ideas about certain characteristics of the shirts based on other variables, despite the preface to the questions making clear that any information not provided is assumed to be the same. For example, the quality of the two shirts is not a characteristic I specify in the survey (it is assumed to be the same between both shirts), but respondents may come to the table believing that one shirt will be of higher quality than the other based on a different characteristic I mention (e.g. a shirt made in the US will be a higher quality product than one made in Nicaragua). Aside from changes in survey designs to mitigate these issues, other possible ways to modify the research in the future could include changing the methodology entirely and conducting a study based on consumer and market data which might be obtainable.

## Conclusion

As people become more exposed to social and ethical issues in the world today, foundations and programs such as Fairtrade play an increasingly prominent role in consumer markets. However, there is still a lack of clarity on the consumer's end about how the money is used and how much of it benefits economically disadvantaged people. This study provides evidence that giving consumers more detailed price breakdowns and more information about the use of product revenue increases their preference for an ethically sourced product that makes some socially and economically conscious contribution. The warm glow effect and the positive utility they receive from making a charitable purchase is particularly strong and knowing more about how much of a premium is taxed does not inhibit their preference, but rather justifies it since they can see that at least some portion goes towards disadvantaged producers. On top of this, consumers place a

notable amount of trust in the government to help solve these socioeconomic issues by indicating an even stronger preference for charitable purchases when told that the government will use the import tax revenue generated towards international development aid. The availability of information in the market plays a pivotal role, and there is a case for organizations whether private or public to pay greater attention to this factor when forming their policies and practices.

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## Appendix A: Tables and Figures

Figure 1a: Gender Distribution

| Field | Choice Count | |
|---|---|---|
| Male | 51% | 39 |
| Female | 49% | 38 |
| | | 77 |

Figure 1b: Human Rights Group Membership

| Field | Choice Count | |
|---|---|---|
| Yes | 10% | 8 |
| No | 90% | 69 |
| | | 77 |

Figure 1c: Age Distribution

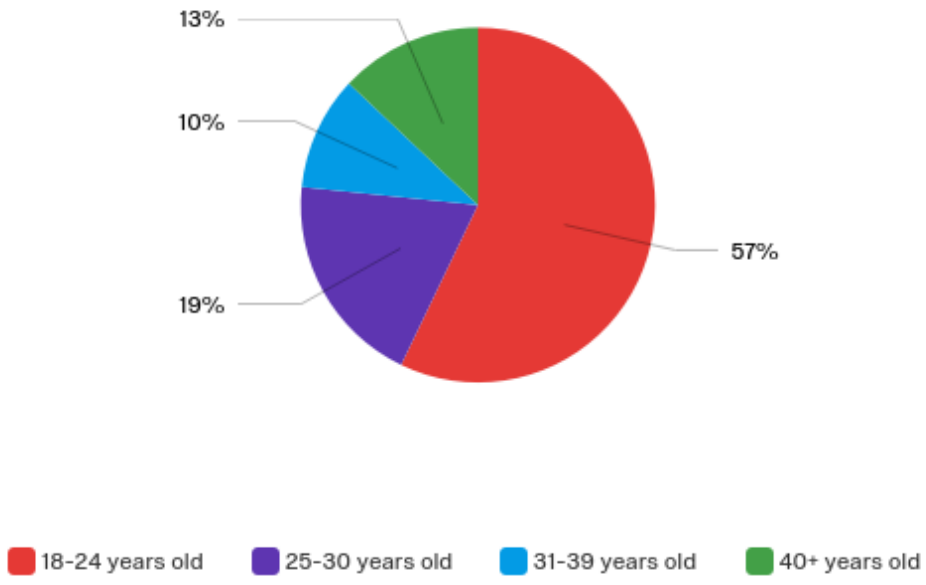


Figure 1d: Education Distribution

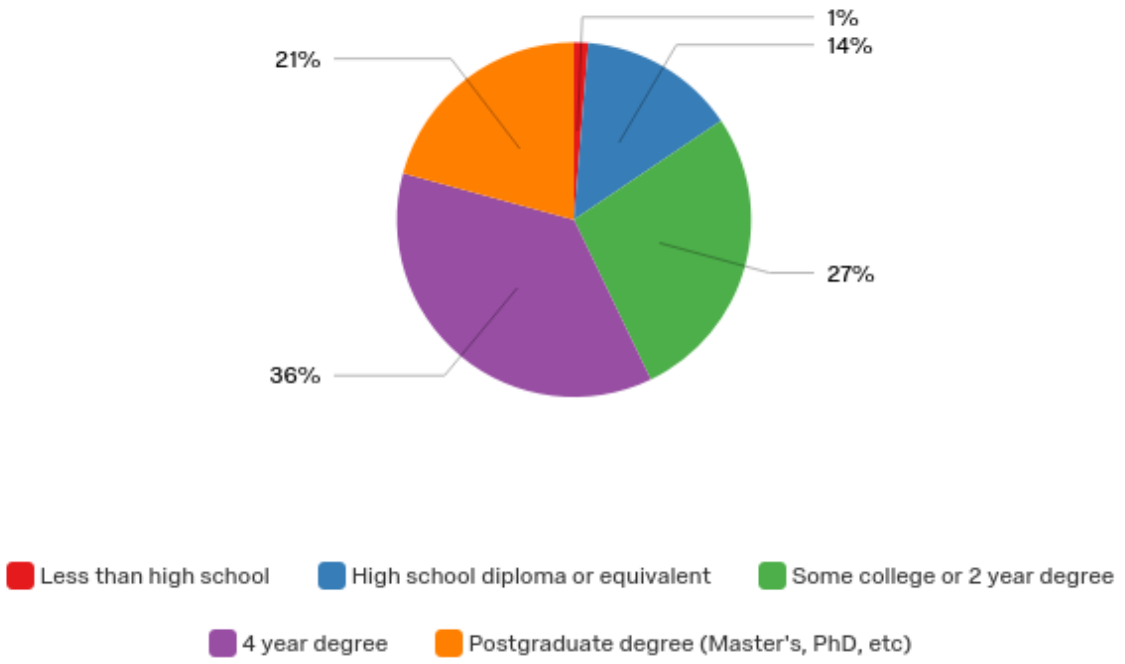



Figure 2: Social Issues Respondents Care About

| Field | Choice Count | |
|---|---|---|
| Child labor | 75% | 58 |
| Animal cruelty | 68% | 52 |
| Supporting American-made goods | 21% | 16 |
| Ethically sourced products | 66% | 51 |
| Poverty and inequality | 73% | 56 |
| Fair labor standards and workplace safety | 77% | 59 |
| None | 5% | 4 |
| | | 77 |

Figure 3: Important factors when making a purchase

| Field | Extremely Important | Very important | Moderately important | Slightly important | Not at all important | Total |
|---|---|---|---|---|---|---|
| The price is as low as possible | 29% 22 | 22% 17 | 34% 26 | 6% 5 | 9% 7 | 77 |
| The T-shirt is made in USA | 3% 2 | 8% 6 | 27% 21 | 12% 9 | 51% 39 | 77 |
| The proceeds from the Fairtrade shirt go towards helping disadvantaged producers improve their standard of living | 29% 22 | 29% 22 | 21% 16 | 14% 11 | 8% 6 | 77 |

Figure 4: Familiarity with Fairtrade label

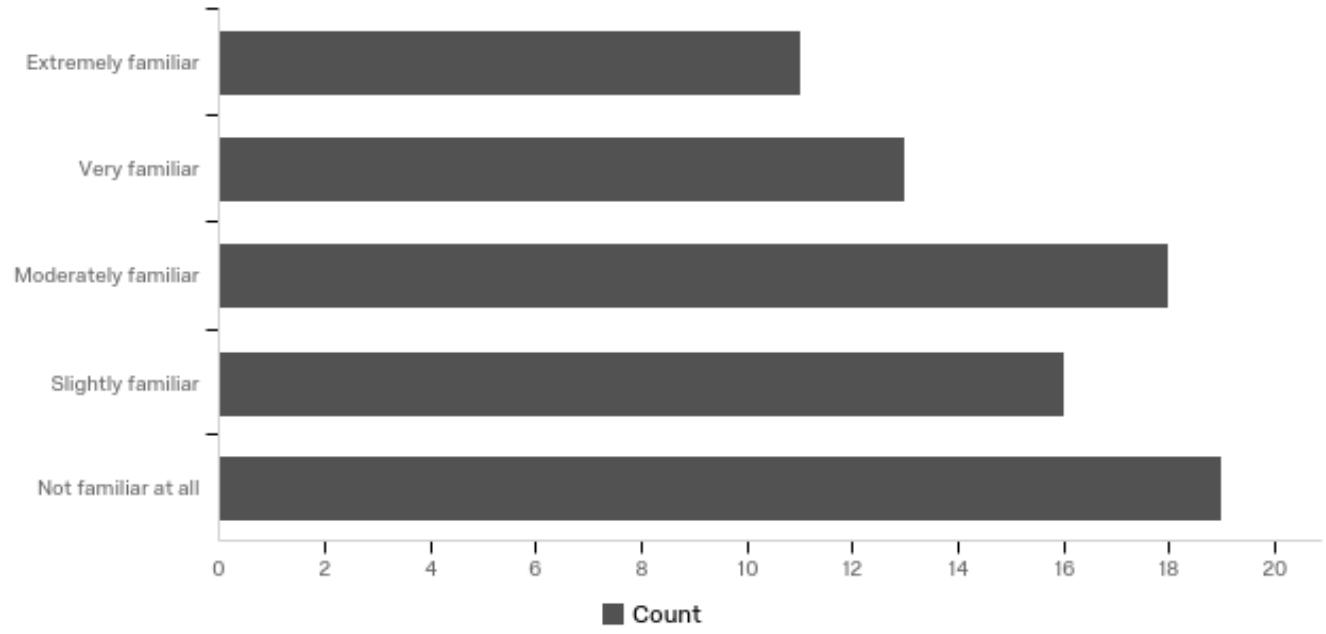


Figure 5: Annual budget for purchasing shirts

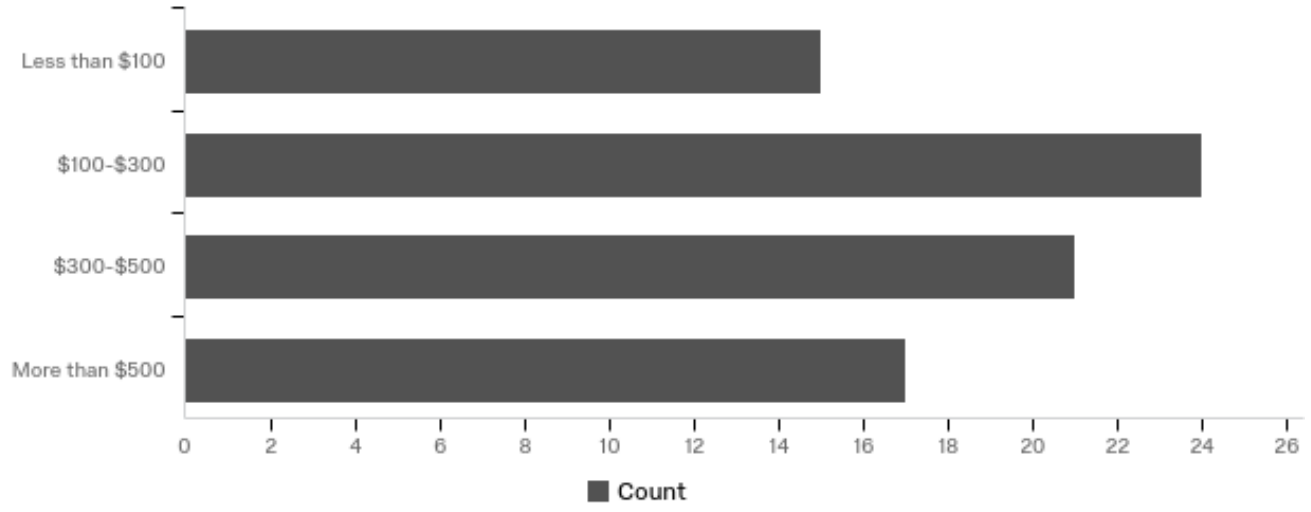



Figure 6: Average number of t-shirts purchased yearly

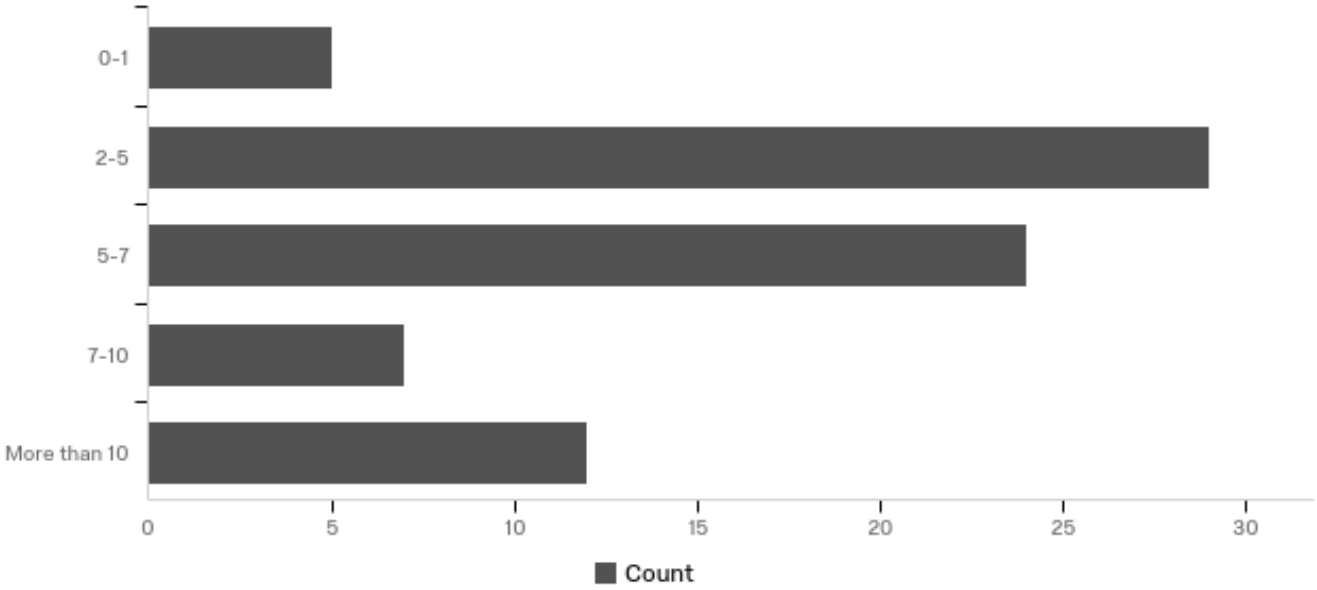


Table 1: Clogit regression for first data subset with no information

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.563*** |
| | (0.125) |
| tariff_perc | -0.00363 |
| | (0.00317) |
| C_NIC | 0.736*** |
| | (0.210) |
| Observations | 1,168 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2: Clogit regression for first data subset with information

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.567*** |
| | (0.125) |
| tariff_perc | -0.00624 |
| | (0.00405) |
| C_NIC | 0.817*** |
| | (0.224) |
| Info1 | 0.156 |
| | (0.151) |
| Observations | 1,168 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Clogit regression for second data subset with no information

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.602*** |
| | (0.112) |
| tariff_perc | -0.0211*** |
| | (0.00520) |
| C_NIC | 1.955*** |
| | (0.319) |
| Observations | 1,442 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Clogit regression for second data subset with information

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.602*** |
| | (0.112) |
| tariff_perc | -0.0211*** |
| | (0.00520) |
| C_NIC | 1.955*** |
| | (0.319) |
| Info2 | 0.00307 |
| | (0.105) |
| Observations | 1,442 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Clogit regression for first model of first subset but with USA instead of Nicaragua

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.563*** |
| | (0.125) |
| tariff_perc | -0.00363 |
| | (0.00317) |
| C_USA | -0.736*** |
| | (0.210) |
| Observations | 1,168 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6: Clogit regression for second model of first subset, with USA instead of Nicaragua

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.567*** |
| | (0.125) |
| tariff_perc | -0.00624 |
| | (0.00405) |
| C_USA | -0.817*** |
| | (0.224) |
| Info1 | 0.156 |
| | (0.151) |
| Observations | 1,168 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 7: Clogit regression for first model of second subset, with USA instead of Nicaragua

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.602*** |
| | (0.112) |
| tariff_perc | -0.0211*** |
| | (0.00520) |
| C_USA | -1.955*** |
| | (0.319) |
| Observations | 1,442 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8: Clogit regression for second model of second subset, with USA instead of Nicaragua

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.602*** |
| | (0.112) |
| tariff_perc | -0.0211*** |
| | (0.00520) |
| C_USA | -1.955*** |
| | (0.319) |
| Info2 | 0.00307 |
| | (0.105) |
| Observations | 1,442 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 9: Clogit regression for first model of first subset, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.719*** |
| | (0.162) |
| tariff_perc | -0.00513 |
| | (0.00399) |
| C_NIC | 0.220 |
| | (0.261) |
| Observations | 776 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 10: Clogit regression for second model of first subset, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.722*** |
| | (0.162) |
| tariff_perc | -0.00866* |
| | (0.00511) |
| C_NIC | 0.328 |
| | (0.278) |
| Info1 | 0.210 |
| | (0.189) |
| Observations | 776 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 11: Clogit regression for first model of second subset, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.718*** |
| | (0.141) |
| tariff_perc | -0.0223*** |
| | (0.00641) |
| C_NIC | 1.472*** |
| | (0.390) |
| Observations | 960 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 12: Clogit regression for second model of second subset, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.718*** |
| | (0.141) |
| tariff_perc | -0.0223*** |
| | (0.00641) |
| C_NIC | 1.472*** |
| | (0.390) |
| Info2 | 0.00227 |
| | (0.130) |
| Observations | 960 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 13: Clogit regression for first information regime

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.607*** |
| | (0.206) |
| C_NIC | 0.611** |
| | (0.292) |
| Observations | 444 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 14: Clogit regression for second information regime

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.544*** |
| | (0.155) |
| tariff_perc | -0.0238*** |
| | (0.00714) |
| C_NIC | 1.788*** |
| | (0.439) |
| Observations | 724 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 15: Clogit regression for third information regime

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.606*** |
| | (0.155) |
| tariff_perc | -0.0164** |
| | (0.00721) |
| C_NIC | 1.936*** |
| | (0.444) |
| Observations | 718 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 16: Clogit regression for first information regime, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.792*** |
| | (0.272) |
| C_NIC | 0.214 |
| | (0.365) |
| Observations | 296 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 17: Clogit regression for second information regime, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.671*** |
| | (0.199) |
| tariff_perc | -0.0271*** |
| | (0.00896) |
| C_NIC | 1.351** |
| | (0.543) |
| Observations | 480 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 18: Clogit regression for third information regime, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.702*** |
| | (0.192) |
| tariff_perc | -0.0160* |
| | (0.00880) |
| C_NIC | 1.489*** |
| | (0.537) |
| Observations | 480 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 19: Regular logit regression for first information regime

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.724*** |
| | (0.224) |
| C_NIC | 0.729** |
| | (0.320) |
| Constant | 5.836*** |
| | (1.792) |
| Observations | 444 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 20: Regular logit regression for second information regime

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.602*** |
| | (0.163) |
| tariff_perc | -0.0260*** |
| | (0.00747) |
| C_NIC | 1.966*** |
| | (0.459) |
| Constant | 4.808*** |
| | (1.305) |
| Observations | 724 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 21: Regular logit regression for third information regime

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.672*** |
| | (0.163) |
| tariff_perc | -0.0180** |
| | (0.00754) |
| C_NIC | 2.145*** |
| | (0.465) |
| Constant | 5.137*** |
| | (1.310) |
| Observations | 718 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 22: Regular logit regression for first information regime, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.937*** |
| | (0.294) |
| C_NIC | 0.236 |
| | (0.399) |
| Constant | 7.895*** |
| | (2.353) |
| Observations | 296 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 23: Regular logit regression for second information regime, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.744*** |
| | (0.209) |
| tariff_perc | -0.0298*** |
| | (0.00941) |
| C_NIC | 1.474*** |
| | (0.570) |
| Constant | 6.348*** |
| | (1.671) |
| Observations | 480 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 24: Regular logit regression for third information regime, limited to US residents

| VARIABLES | (1)<br>choice |
|---|---|
| price | -0.778*** |
| | (0.201) |
| tariff_perc | -0.0175* |
| | (0.00922) |
| C_NIC | 1.641*** |
| | (0.563) |
| Constant | 6.284*** |
| | (1.615) |
| Observations | 480 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 7: Aggregate demand curve for Made in Nicaragua shirt

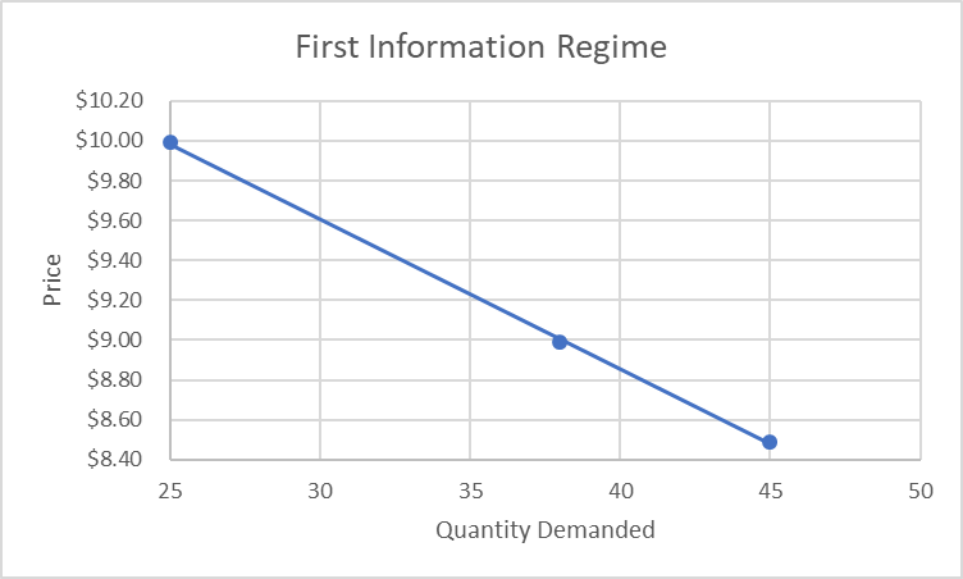



Figure 8a: Aggregate demand curve for Made in Nicaragua shirt

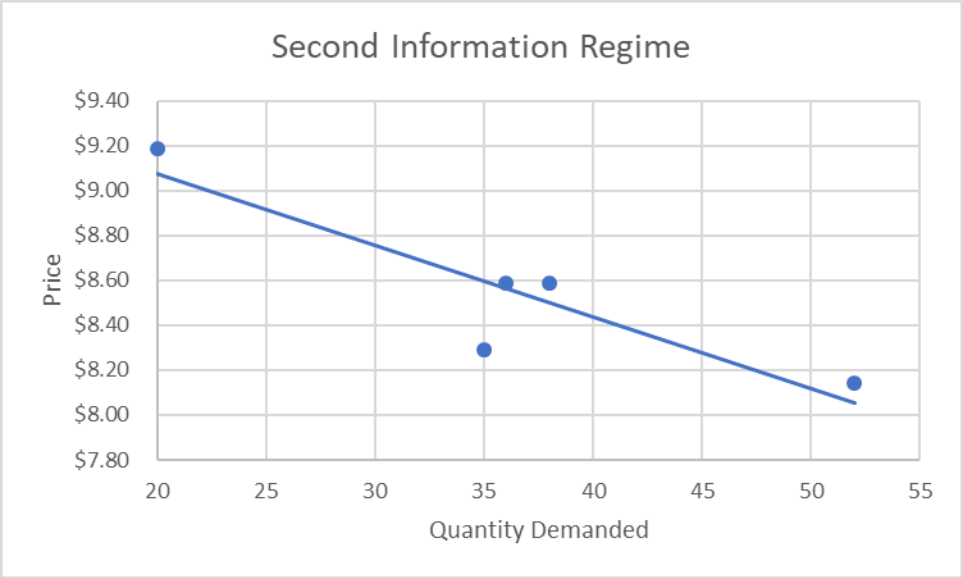


Figure 8b: Aggregate demand for Made in Nicaragua shirt

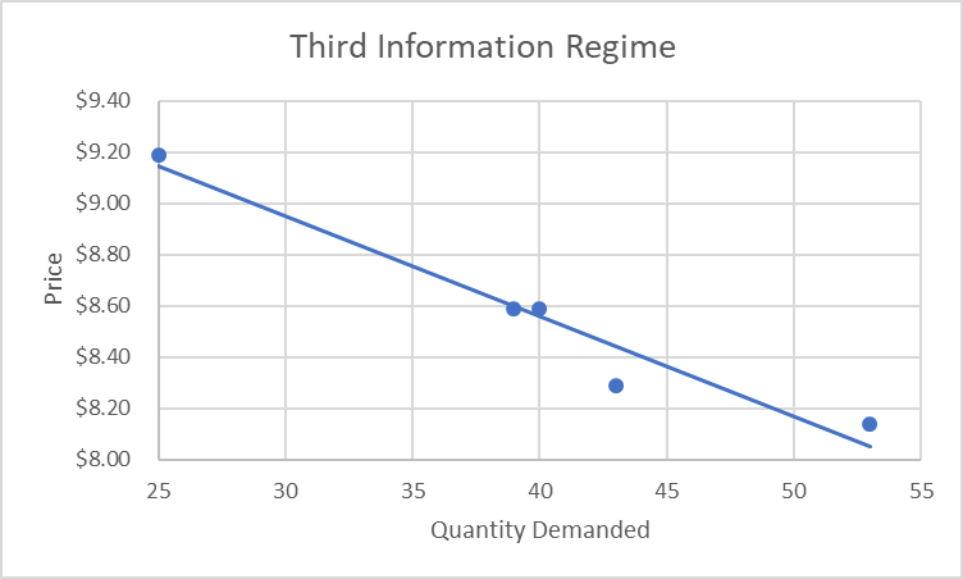



Figure 9: Aggregate demand for Made in Nicaragua shirt, all three information regimes

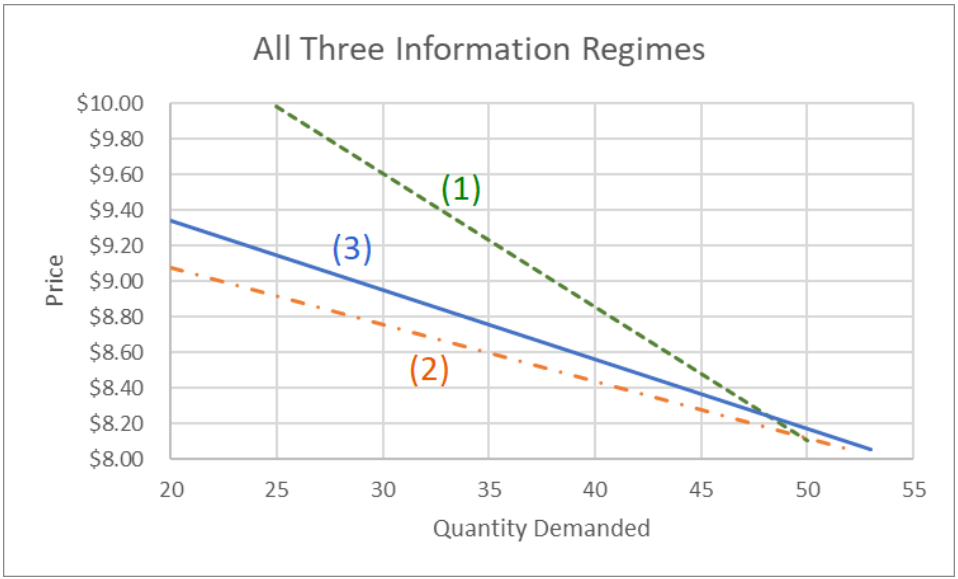


Figure 10: Respondents' choice between the two shirts (relative to Nicaraguan shirt price)

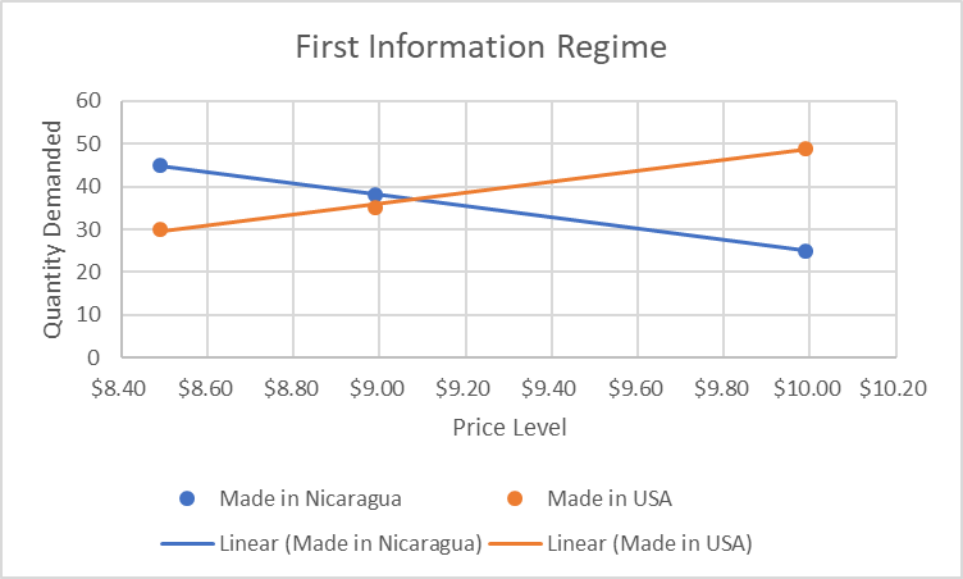



Figure 11a: Respondents' choice between the two shirts (relative to Nicaraguan shirt price)

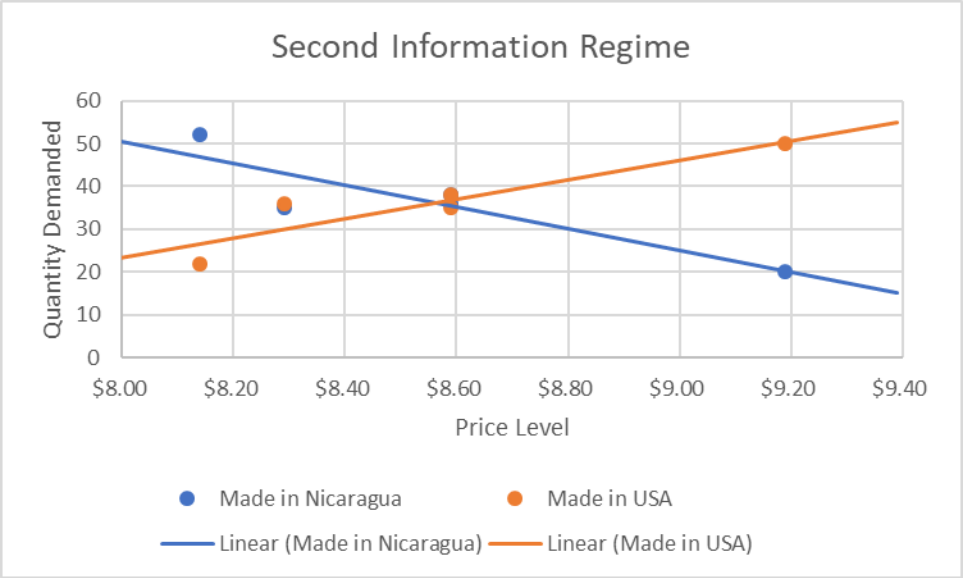
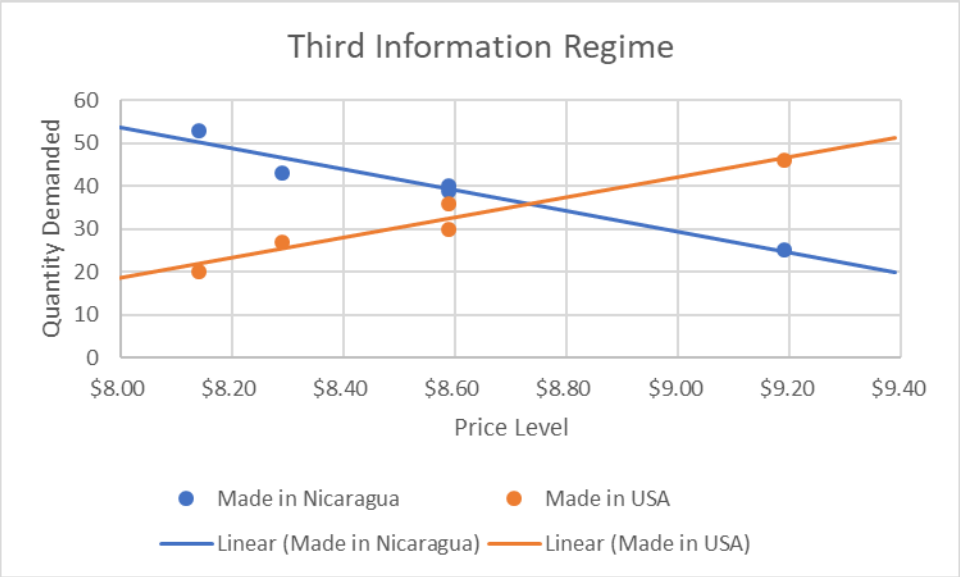


Figure 11b: Respondents' choice between the two shirts (relative to Nicaraguan shirt price)



## Appendix B: The Survey

### Preliminary Questions

This survey should take you approximately 5-8 minutes. Your responses will remain completely anonymous.

How familiar are you with the Fair Trade label?

- ○ Extremely familiar
- ○ Very familiar
- ○ Moderately familiar
- ○ Slightly familiar
- ○ Not familiar at all

Which of these issues do you care about? (Check all that apply)

- ☐ Child labor
- ☐ Animal cruelty
- ☐ Supporting American-made goods
- ☐ Ethically sourced products
- ☐ Poverty and inequality
- ☐ Fair labor standards and workplace safety
- ☐ None

### Information Regime 1

Imagine that you are buying a T-shirt and there are two different T-shirts available. Assume that the attributes are identical except for price and any information given.

The Fair Trade Certified™ label by Fairtrade International is a certification that indicates that the product is sourced in a socially responsible manner. A portion of the income made from the sale of Fair Trade products goes to the producers to help improve their standard of living.

All prices are in terms of US Dollars. **Assume all prices are after-tax prices**.

Please pick one of the following choices.

| Made in Nicaragua<br>Fairtrade certified<br>**$8.49** | Made in USA<br>No label<br>**$7.99** | None of these |
|---|---|---|
| ○ | ○ | ○ |

Please pick one of the following choices.

| Made in Nicaragua<br>Fairtrade certified<br>**$8.99** | Made in USA<br>No label<br>**$7.99** | None of these |
|---|---|---|
| ○ | ○ | ○ |

Please pick one of the following choices.

| Made in Nicaragua<br>Fairtrade certified<br>**$9.99** | Made in USA<br>No label<br>**$7.99** | None of these |
|---|---|---|
| ○ | ○ | ○ |

**Information Regime 2**

Now we will present you with additional information for the following questions.

A portion of the price difference between the Fairtrade product and non-labeled product **is the result of an import tax**. Along with the price of the product, the breakdown of how much of the price goes towards the tax vs the producers is also included.

**As before, all prices are after-tax prices.**

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$8.49**<br>$0.15 of this goes toward import tax<br>$0.35 goes to the producer | Made in USA<br>No label<br>**$7.99** | None of these |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$8.49**<br>$0.30 of this goes toward import tax<br>$0.20 goes to the producer | Made in USA<br>No label<br>**$7.99** | None of these |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$8.99**<br>$0.60 of this goes toward import tax<br>$0.40 goes to the producer | Made in USA<br>No label<br>**$7.99** | None of these |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$9.99**<br>$0.60 of this goes toward import tax<br>$1.40 goes to the producer | Made in USA<br>No label<br>**$7.99** | None of these |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made In Nicaragua<br>Fairtrade certified<br>**$9.99**<br>$1.20 of this goes toward import | Made in USA<br>No label<br>**$7.99** | None of these |

tax
$0.80 goes to the producer
○

**Information Regime 3**

Now we will present you with one more additional piece of information.

A portion of the price difference between the two products is still the result of an import tax. As before, all prices are after-tax prices.

**The income received through the import tax will be used by the US government towards aid programs and packages for developing regions in the world.**

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$8.49**<br>$0.15 of this goes toward import tax<br>$0.35 goes to the producer<br>○ | Made in USA<br>No label<br>**$7.99**<br>○ | None of these<br>○ |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$8.49**<br>$0.30 of this goes toward import tax<br>$0.20 goes to the producer<br>○ | Made in USA<br>No label<br>**$7.99**<br>○ | None of these<br>○ |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$8.99**<br>$0.60 of this goes toward import tax<br>$0.40 goes to the producer | Made in USA<br>No label<br>**$7.99**<br>○ | None of these<br>○ |

○

Please pick one of the following choices.

| | | |
|---|---|---|
| Made in Nicaragua<br>Fairtrade certified<br>**$9.99**<br>$0.60 of this goes toward import tax<br>$1.40 goes to the producer<br>○ | Made in USA<br>No label<br>**$7.99**<br>○ | None of these<br>○ |

Please pick one of the following choices.

| | | |
|---|---|---|
| Made In Nicaragua<br>Fairtrade certified<br>**$9.99**<br>$1.20 of this goes toward import tax<br>$0.80 goes to the producer<br>○ | Made in USA<br>No label<br>**$7.99**<br>○ | None of these<br>○ |

**Follow-up Questions**

Please indicate which of the following claims are important when you consider labeled and non-labeled T-shirts by placing a check in the appropriate box for each statement.

| | Extremely Important | Very important | Moderately important | Slightly important | Not at all important |
|---|---|---|---|---|---|
| The price is as low as possible | ○ | ○ | ○ | ○ | ○ |
| The T-shirt is made in USA | ○ | ○ | ○ | ○ | ○ |
| The proceeds from the Fairtrade shirt go towards helping disadvantaged producers improve their standard of living | ○ | ○ | ○ | ○ | ○ |

**Follow-up Questions**

What is your budget for purchasing clothes annually?

- ○ Less than $100
- ○ $100-$300
- ○ $300-$500
- ○ More than $500

On average, how many shirts do you purchase each year?

- ○ 0-1
- ○ 2-5
- ○ 5-7
- ○ 7-10
- ○ More than 10

Do you live in the United States?

- ○ Yes
- ○ No

What is your gender?

- ○ Male
- ○ Female

What's your age?

- ○ 18-24 years old
- ○ 25-30 years old
- ○ 31-39 years old
- ○ 40+ years old

What is the highest degree or level of school you have completed?

- ◯ Less than high school
- ◯ High school diploma or equivalent
- ◯ Some college or 2 year degree
- ◯ 4 year degree
- ◯ Postgraduate degree (Master's, PhD, etc)

Are you a member of a human rights or social protection group?

- ◯ Yes
- ◯ No

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